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13. (Once Amended) A protective cover for agricultural products in accordance with claim [10] 12, wherein

AD  
said polymeric material is a thermoplastic polymer, and said protection enhancing agent is a melt-additive in said polymer.

#### REMARKS

Responsive to the Official Action mailed January 13, 2003, applicants have amended the claims of their application in an earnest effort to place this case in condition for allowance. Specifically, claim 1, and the claims depending therefrom, have been amended. Reconsideration is respectfully requested.

Applicants acknowledge the Examiner's withdrawal of the election requirement.

In the Action, the Examiner has rejected the pending claims under 35 U.S.C. §103, with reliance upon U.S. Patent No. 6,030,906, to Hassenboehler et al., in view of U.S. Patent No. 6,061,954, to Vanier, with further reliance upon U.S. Patent No. 5,091,240, to Kajander et al. However, it is respectfully submitted that these references, either singly or in combination, do not teach or suggest applicants' agricultural protective cover, as claimed, and accordingly, the Examiner's rejections are respectfully traversed.

As discussed in applicants' specification, the present application provides a novel protective cover for agricultural products, which desirably acts to protect the products from dust and insects while they ripen, while further permitting selective configuration of the cover to alter and control the ripening of the agricultural products. In distinction from previous agricultural covers, the present invention contemplates formation from

nonwoven fabric material, thus permitting the cover to be configured for air permeability, vapor permeability, or other desired characteristics.

In the Action, the Examiner has principally relied upon the Hassenboehler et al. patent in rejecting the presently pending claims. However, applicants must respectfully note that this reference has *no teachings* whatsoever of providing a cover for agricultural products which can be configured to control and alter ripening.

In the Action, the Examiner has made reference to the disclosure in the Hassenboehler et al. patent of its use for "protective apparel", such as examination gowns, surgical drapes, face masks, shoe covers, and the like. However, the characteristics for such "protective apparel" contemplated by Hassenboehler et al. are not necessarily at all related to the characteristics which can be desirable for a cover for agricultural products. For example, at column 12, line 38 et seq., the Hassenboehler reference discusses barrier products of the disclosed fiber webs, particularly the ability of a fabric to resist strike-through of fluid in microorganisms. The patent states "barrier properties protect the operating room staff and the [patient] from infection". For certain applications, a cover configured in accordance with the present invention may include at least one region modified to control light transmission and/or variations in sequestering, venting, or transfer of volatile ripening agents (page 12, line 21 *et seq.*). Clearly, the limited teachings of Hassenboehler et al., specifically related to protective *apparel* such as for medical applications, simply do not lead one skilled in the art to contemplate use of its disclosure for formation of a protective cover for agricultural products. In fact, the

characteristics which are touted in the disclosure of Hassenboehler can, for some applications, be detrimental for controlling ripening of agricultural products.

Additionally, the present application discloses the optional inclusion of apertures in the disclosed protective cover, which can be desirable for some applications. Clearly, the "barrier" properties contemplated by the protective apparel disclosed in Hassenboehler et al. would *teach away* from these optional features of the present agricultural cover.

The Examiner acknowledges that the Hassenboehler et al. reference does not disclose a "cover sized to fit around an associated agricultural product". Applicants respectfully submit that this is somewhat of an understatement, since Hassenboehler et al. is *completely silent* as to any teachings whatsoever of use of the material disclosed therein for protection of agricultural products.

Accordingly, the Examiner has relied upon the Vanier patent for its teachings relating to a cover for cultivating bananas. However, the type of cover disclosed in Vanier, consisting of plastic film (column 2, line 48), is the very type of cover upon which the present invention seeks to improve, since experience has shown that these types of plastic film covers can be less than satisfactory due to adverse transmittance of light and transfer of moisture (see page 1 of applicants' specification). Moreover, Vanier specifically contemplates creation of a "greenhouse" effect, "favouring the growth of bananas by addition of heat through a reduction in the loss of heat by radiation at night and which by day allows all visible light and a good part of the UV A to pass, and which absorbs UV B and reflects infra-red between 20 and 30 percent." Thus, Vanier contemplates a cover which is *substantially uniform* in composition and construction, and

does not teach a fibrous nonwoven fabric can include a portion exhibiting the ability to modify the ripening of the associated agricultural product, as claimed.

In the Action, the Examiner makes reference to the various teachings of the Hassenboehler et al. and Vanier patents in consideration of applicants' dependent claims. However, applicants must respectfully note that *only their own disclosure* would even teach or suggest combining the diverse teachings of the Hassenboehler et al. and Vanier references. As noted above, Hassenboehler et al. is simply devoid of any teachings of use of the materials disclosed therein as covers for agricultural products, much less any teachings relating to a protective cover for agricultural products which provides controlled ripening. Vanier is limited in its teachings to the provision of a cover formed from substantially fluid impervious plastic film material, which by its very nature, is incapable of providing the physical characteristics of applicants' invention. Applicants particularly note the absence in Vanier: of providing a nonwoven fabric formed from thermoplastic polymer (claim 2); of providing a nonwoven fabric of the specified basis weight (claim 3); of forming a nonwoven fabric from staple length fiber (claim 4), or spunbond polymeric filaments (5); or of providing a reinforcing scrim (claim 10). In this regard, the Examiner has made reference to column 5, line 11 of Hassenboehler et al. relating to use of cellulose-based natural staple fibers. However, it is respectfully maintained that this does *not* teach the use of an associated "scrim", understood by those skilled in the art to be a net-like structure, typically provided for reinforcement.

The Examiner has also formulated a rejection of claim 11, specifying the provision of a porous, polymeric film layer, and makes reference to column 4, line 17 of

Hassenboehler et al. However, the referenced "third layer" of this patent calls for a "man-made fibrous material", and does not overcome the clear deficiencies in the combined teachings of the references in teaching the provision of a porous, polymeric film layer.

With respect to claim 13, the Examiner refers to the teachings in Hassenboehler et al. of a "meltblown" layer, but there is no teaching or suggestion in this reference of providing protection-enhancing agents including insecticidal, fungicidal, or algacidal agents or the like.

In rejecting claims 16 and 17, the Examiner has again relied on the combined teachings of Hassenboehler et al. and Vanier, stating "it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cover of Hassenboehler et al. by using an associated agricultural product as disclosed by Vanier so as because [sic] of the covers unique pore size, breathability, and barrier properties". Applicants must respectfully maintain that this is simply reading beyond the teachings of either of the references. As specifically noted by the Examiner, Hassenboehler et al. relates to "*protective apparel*". It is simply devoid of any teachings of configuring the materials disclosed therein for use in connection with agricultural products. The Vanier reference is specifically limited in its teachings to the use of *plastic film*. The complete absence in this reference of use of nonwoven fibrous materials in accordance with the present invention, underscores the inventiveness of applicants' use of such materials to obtain heretofore unachieved control of ripening and protection of agricultural products.


In the Action, the Examiner has further relied upon the Kajander et al. patent, but it is respectfully maintained that the teachings of this patent, relating to use of adhesive,

clearly does not overcome the deficiencies in the teachings of the Hassenboehler et al. and Vanier references.

In view of the foregoing, formal allowance of claims 1-26 is believed to be in order and is respectfully solicited. Should the Examiner wish to speak with applicants' attorneys, they may be reached at the number indicated below.

The Commissioner is hereby authorized to charge any additional fee which may be required in connection with this submission to Deposit Account No. 23-0785.

Respectfully submitted,

By   
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**CERTIFICATE OF MAILING**

I hereby certify that this Amendment is being deposited with the United States Postal Service with sufficient postage at First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on April 14, 2003.



1. A protective cover for protection of agricultural products, said protective cover sized to permit said cover to be positioned generally about an associated agricultural product, said cover comprising a fibrous nonwoven fabric formed from fibrous material selected from the group consisting of thermoplastic polymers, thermoset polymers, natural fibers, and combinations thereof, and/or polymeric filamentary elements, said fibrous nonwoven fabric including a portion exhibiting the ability to modify the ripening of the agricultural product prior to harvesting, while retarding passage of dust and insects.

13. A protective cover for agricultural products in accordance with claim 12, wherein

said polymeric material is a thermoplastic polymer, and said protection enhancing agent is a melt-additive in said polymer.